

CLAIMS

What is claimed is:

1. A gage assembly for measuring a generally cylindrical workpiece defining a longitudinal axis, said gage assembly comprising:

at least one support member;

at least one gage block subassembly located opposite said at least one support member and having a moveable contact located in spaced relation from said support member so as to define a gaging space therebetween, said gage block assembly also including a measuring device coupled to said contact; and

a part handling member coupled to an actuator, said actuator adapted to move said part handling member from a position contacting the workpiece on a first side of said gaging space to a position where the workpiece is in said gaging space and to a position where the workpiece is on an opposing side of said gaging space, whereby the workpiece is passed between said support member and said gage block subassembly.

2. The gage assembly of claim 1 wherein said part handling member is moved in a direction along a longitudinal axis defined by said at least one support member.

3. The gage assembly of claim 1 wherein said support member defines a support surface.

4. The gage assembly of claim 3 wherein said support surface is raised relative to a support block within which said support member is mounted.

5. The gage assembly of claim 3 wherein said support member is a rail.

6. The gage assembly of claim 5 wherein said rail is of carbide material.

7. The gage assembly of claim 5 wherein said rail is generally round in cross-section.

8. The gage assembly of claim 1 wherein said part handling member is continuously moveable by said actuator from said first side to said opposing side of said gaging space.

9. The gage assembly of claim 1 wherein said part handling member is moveable in a direction transverse to the longitudinal axis of the workpiece.

10. The gage assembly of claim 1 further comprising a workpiece receiving station located adjacent to said first side of said gaging space, said receiving station including portions defining a workpiece receiving channel oriented transversely to said at least one support member.

11. The gage assembly of claim 10 wherein said workpiece receiving channel is defined by a V-block.

12. The gage assembly of claim 1 further comprising a means for moving said part handling member at a variable rate.

13. The gage assembly of claim 12 wherein said means for moving said part handling member causes movement of said part handling member at a slower rate when the workpiece is in said gaging space than when the workpiece is on said first side of said gaging space.

14. The gage assembly of claim 12 wherein said means for moving said part handling member is a retarder.

15. The gage assembly of claim 12 wherein said retarder includes a shock absorber.

16. The gage assembly of claim 12 wherein said retarder includes a portion rotatable to an over center position.

17. A method of measuring a cylindrical workpiece comprising the steps of:
providing a generally cylindrical workpiece defining a longitudinal axis therethrough;

moving the workpiece from a start position into a gaging space defined within a gage assembly;

measuring the workpiece at at least two locations along its length when the workpiece is located in the gaging space;

moving the workpiece from the gaging space to an exit position where the workpiece is discharged from the gage assembly;

wherein the moving steps move the workpiece in a direction transverse to the longitudinal axis of the workpiece; and

wherein the moving steps continuously move the workpiece from the start position, through the gaging position and to the exit position.

18. The method of claim 17 wherein the moving steps move the workpiece at a variable rate.

19. The method of claim 17 wherein the moving steps move the workpiece at a reduced rate at the gaging station than the rate the workpiece is moved from the start position.

20. The method of claim 17 wherein the moving steps move the workpiece at a reduced rate at the gaging station than the rate the workpiece is moved to the exit position.